2-9-2009

Faculty Evaluation Committee Minutes, February 9, 2009

Utah State University

Faculty Evaluation Committee Meeting
February 9, 2009

Present: Greg Podgorski (chair), Doran Baker, Yong Kim, Joan Kleinke, Crag Peterson, Tamara Vitale, and Ronda Olsen.

Jamison Fargo's analysis of the fall 2008 Faculty Evaluation data was presented and is appended at the bottom of these minutes.

In a nutshell, our existing course evaluation form seems reliable at measuring whatever it is that's being measured. The statistical analysis can't tell us what it is that the form assesses – this is largely subjective. If three questions are dropped from subscale III (Information about the Instruction; the questions are indicated in the later portion of the attachment), Jamison found that the existing form becomes even more reliable.

The committee members present felt that it is time to report our progress and share our findings with the Faculty Senate. I met with Mike Parent, Faculty Senate President yesterday afternoon to discuss possible plans. I'll be presenting a report to the Faculty Senate Executive Committee a week from today.

At this meeting, I'll report that:

- We've met with a professional consultant (Dr. Arreola)
- We've investigated the use of commercial forms (and these are prohibitively expensive)
- We've analyzed the existing form and found it to be a reliable instrument
- We see three options (and would like some advice for the Executive Committee)
    - Leave the existing reliable form as is
    - Modify the existing form modestly (for example, drop redundant questions, reduce the number of response categories to 4 or 5, improve the wording of some questions, move the overview questions of instructor and course effectiveness to the end of the form or drop the altogether)
    - Create a new form (after considering things such as who the results serve, what it is we seek to measure, and choosing and testing validated questions from existing, available lists)

I will emphasize the amount of work involved in this last option and say that we will need a clear, stationary target to aim for (not one that moves with every senate meeting or election) if we are to even think of making changes to the form.

I'll let you know what the Executive Committee has to say after the presentation.

Look for an e-mail following this on another topic related to the Faculty Evaluations Committee – selection of Teacher of the Year and Advisor of the Year.

Submitted by Greg Podgorski 2/10/09

Analysis of Fall 2008 USU Teacher/Course Evaluations (N = 50,962)

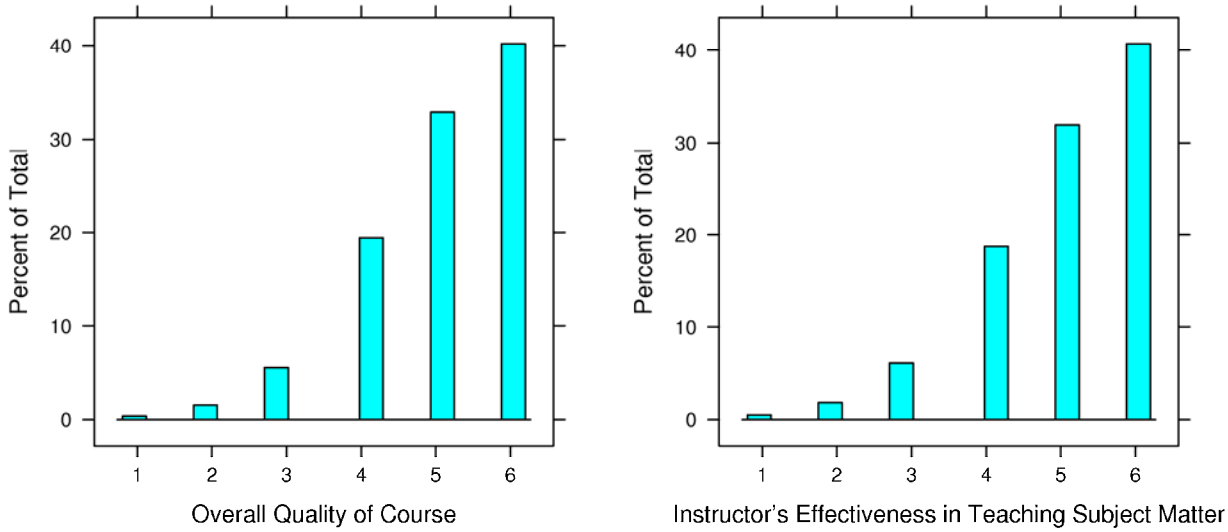
Jamison D. Fargo, PhD, Assistant Professor of Psychology, Utah State University

February 2009

I. General Evaluation (2 items)

	M	SD	0%	25%	50%	75%	100%	n	NA
Q1_1	5.04	1.00	1	4	5	6	6	50877	85
Q1_2	5.08	1.06	1	4	5	6	6	50473	489

Histograms for q1_1 and q1_2:



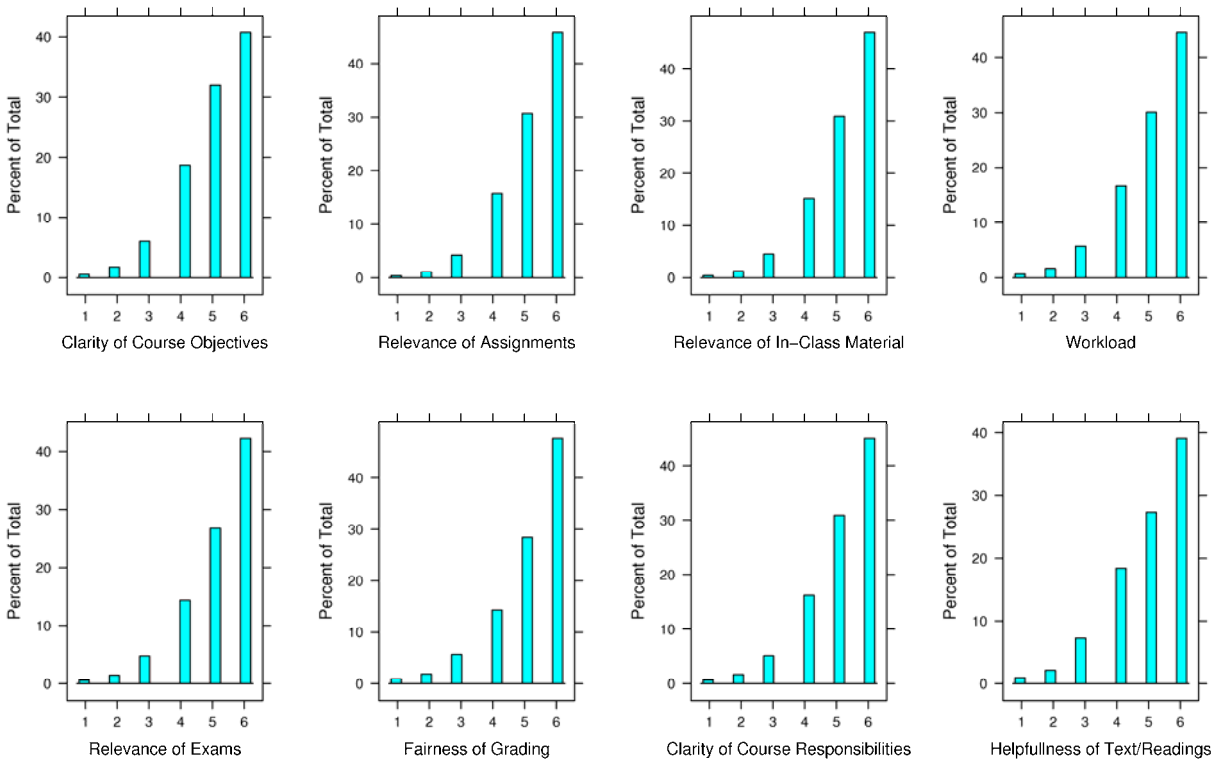
Correlation between q1 and q2: 0.85

Cronbach alpha **(Internal Consistency Reliability)** for q1 and q2: 0.92

II. Subscale I: Information about the Course (8 items)

	M	SD	0%	25%	50%	75%	100%	n	NA
Q2_1	5.03	1.04	1	4	5	6	6	50810	152
Q2_2	5.18	0.96	1	5	5	6	6	49872	1090
Q2_3	5.18	0.98	1	5	5	6	6	50608	354
Q2_4	5.09	1.05	1	5	5	6	6	50551	411
Q2_5	5.13	1.03	1	5	5	6	6	45912	5050
Q2_6	5.13	1.07	1	5	5	6	6	50330	632
Q2_7	5.11	1.03	1	5	5	6	6	50707	255
Q2_8	4.96	1.12	1	4	5	6	6	48461	2501

Histograms for q2_1 thru q2_8:



Correlation matrix for q2_1 through q2_8:

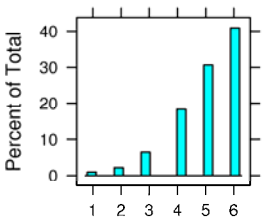
	Q2_1	Q2_2	Q2_3	Q2_4	Q2_5	Q2_6	Q2_7
Q2_2	0.73						
Q2_3	0.75	0.78					
Q2_4	0.66	0.70	0.70				
Q2_5	0.69	0.70	0.73	0.72			
Q2_6	0.66	0.66	0.67	0.68	0.73		
Q2_7	0.78	0.71	0.73	0.69	0.72	0.74	
Q2_8	0.66	0.67	0.69	0.64	0.66	0.63	0.71

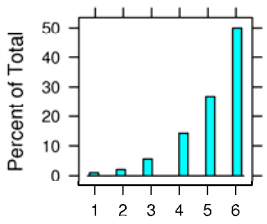
Cronbach alpha **(Internal Consistency Reliability)** for q2_1 thru q2_8:
0.95

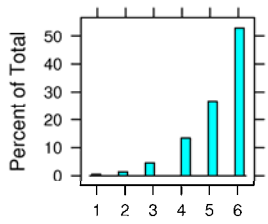
III. Subscale II: Information about the Instruction (10 items)

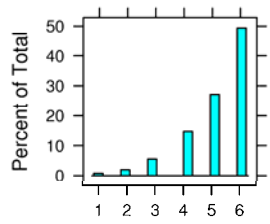
	M	SD	0%	25%	50%	75%	100%	n	NA
Q3_1	4.99	1.10	1	4	5	6	6	50707	255
Q3_2	5.15	1.09	1	5	6	6	6	50724	238
Q3_3	5.25	1.00	1	5	6	6	6	50679	283
Q3_4	5.15	1.07	1	5	5	6	6	50688	274
Q3_5	5.46	0.88	1	5	6	6	6	50778	184
Q3_6	5.20	1.04	1	5	6	6	6	50724	238
Q3_7	5.39	0.89	1	5	6	6	6	50755	207
Q3_8	5.34	0.93	1	5	6	6	6	50762	200
Q3_9	5.32	0.97	1	5	6	6	6	50644	318
Q3_10	5.13	1.07	1	5	5	6	6	49659	1303

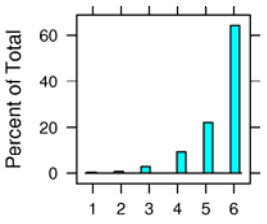
Histograms for q3_1 thru q3_10:

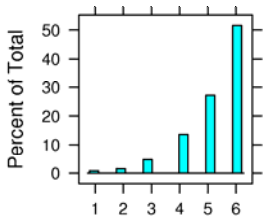


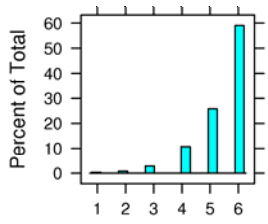


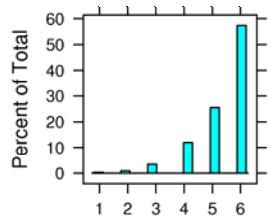


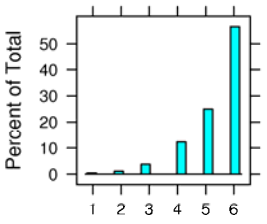


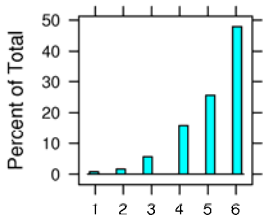












Correlation matrix for q3_1 thru q3_10:

	Q3_1	Q3_2	Q3_3	Q3_4	Q3_5	Q3_6	Q3_7	Q3_8	Q3_9
Q3_2	0.78								
Q3_3	0.75	0.84							
Q3_4	0.76	0.78	0.80						
Q3_5	0.62	0.67	0.70	0.68					
Q3_6	0.72	0.84	0.79	0.76	0.71				
Q3_7	0.69	0.70	0.72	0.73	0.71	0.73			
Q3_8	0.62	0.69	0.67	0.66	0.64	0.73	0.67		
Q3_9	0.61	0.67	0.66	0.63	0.62	0.71	0.64	0.86	
Q3_10	0.63	0.67	0.64	0.64	0.60	0.71	0.62	0.70	0.69

Cronbach alpha **(Internal Consistency Reliability)** for q3_1 thru q3_10:
0.96

IV. Confirmatory Factor Analysis (Construct Validity)

A. Existing Instrument

CFI/TLI

CFI	0.923
TLI	0.912

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.069	
90 Percent C.I.	0.069	0.070
Probability RMSEA <= .05	0.000	

SRMR (Standardized Root Mean Square Residual)

Value	0.033

STANDARDIZED MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
COURSE BY				
Q2_7	0.862	0.002	481.581	0.000
Q2_1	0.849	0.002	472.153	0.000
Q2_2	0.843	0.002	420.085	0.000
Q2_3	0.871	0.002	523.114	0.000
Q2_4	0.798	0.002	327.814	0.000
Q2_5	0.836	0.002	372.133	0.000
Q2_6	0.798	0.003	316.128	0.000
Q2_8	0.789	0.003	311.884	0.000
INSTRCT BY				
Q3_2	0.899	0.001	680.818	0.000
Q3_1	0.843	0.002	443.102	0.000
Q3_3	0.887	0.002	566.902	0.000
Q3_4	0.867	0.002	502.118	0.000
Q3_5	0.776	0.003	273.545	0.000
Q3_6	0.893	0.001	633.962	0.000
Q3_7	0.817	0.002	346.197	0.000
Q3_8	0.799	0.003	295.295	0.000
Q3_9	0.779	0.003	266.241	0.000
Q3_10	0.770	0.003	282.212	0.000
INSTRCT W/ COURSE	0.901	0.002	590.036	0.000

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Q2_1	0.722	0.003	236.076	0.000
Q2_2	0.710	0.003	210.042	0.000
Q2_3	0.759	0.003	261.557	0.000
Q2_4	0.637	0.004	163.907	0.000
Q2_5	0.698	0.004	186.067	0.000
Q2_6	0.637	0.004	158.064	0.000
Q2_7	0.743	0.003	240.790	0.000
Q2_8	0.622	0.004	155.942	0.000
Q3_1	0.710	0.003	221.551	0.000
Q3_2	0.808	0.002	340.409	0.000
Q3_3	0.787	0.003	283.451	0.000
Q3_4	0.751	0.003	251.059	0.000
Q3_5	0.601	0.004	136.773	0.000
Q3_6	0.798	0.003	316.981	0.000
Q3_7	0.667	0.004	173.098	0.000
Q3_8	0.639	0.004	147.648	0.000
Q3_9	0.607	0.005	133.120	0.000
Q3_10	0.594	0.004	141.106	0.000

FACTOR RELIABILITY

COURSE:	0.978
INSTRUCT:	0.982

B. Revised Instrument (Items 3, 6, and 9 removed from Subscale II)

MODEL FIT

CFI	0.956
TLI	0.949

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.056	
90 Percent C.I.	0.055	0.057
Probability RMSEA <= .05	0.000	

SRMR (Standardized Root Mean Square Residual)

	Value
	0.025

STANDARDIZED MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
COURSE BY				
Q2_7	0.862	0.002	483.527	0.000
Q2_1	0.850	0.002	476.721	0.000
Q2_2	0.842	0.002	419.088	0.000
Q2_3	0.872	0.002	529.467	0.000
Q2_4	0.798	0.002	327.339	0.000
Q2_5	0.835	0.002	371.341	0.000
Q2_6	0.797	0.003	314.859	0.000
Q2_8	0.790	0.003	313.045	0.000
INSTRCT BY				
Q3_2	0.879	0.002	563.608	0.000
Q3_1	0.864	0.002	497.459	0.000
Q3_4	0.872	0.002	521.876	0.000
Q3_5	0.768	0.003	263.858	0.000
Q3_7	0.820	0.002	353.006	0.000
Q3_8	0.774	0.003	267.849	0.000
Q3_10	0.765	0.003	273.410	0.000
INSTRCT W/ COURSE	0.919	0.001	646.287	0.000

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
Q2_1	0.723	0.003	238.360	0.000
Q2_2	0.709	0.003	209.544	0.000
Q2_3	0.761	0.003	264.734	0.000
Q2_4	0.636	0.004	163.670	0.000
Q2_5	0.697	0.004	185.671	0.000
Q2_6	0.635	0.004	157.430	0.000
Q2_7	0.743	0.003	241.763	0.000
Q2_8	0.623	0.004	156.523	0.000
Q3_1	0.746	0.003	248.729	0.000
Q3_2	0.773	0.003	281.804	0.000
Q3_4	0.760	0.003	260.938	0.000
Q3_5	0.590	0.004	131.929	0.000
Q3_7	0.673	0.004	176.503	0.000
Q3_8	0.599	0.004	133.925	0.000
Q3_10	0.585	0.004	136.705	0.000

FACTOR RELIABILITY

COURSE: 0.978
INSTRUCT: 0.976

V. A Few Recommendations for Retooling Existing Instrument:

1) Modifications to Subscale II:
    a. Several items are highly intercorrelated, suggesting redundancy: Items 2 and 3 are correlated @ .84; items 2 and 6 are correlated @ .84; 3 and 4 are correlated @ .80; 8 and 9 are correlated @ .86.
        i. Combine items 2, 3, and 6 into 1 item (or drop items 3 and 6).
        ii. Combine items 8 and 9 into 1 item.
            1. Cronbach alpha for subscale II without items 3, 6, and 9 is: 0.94
        iii. Construct validity improves when items 3, 6, and 9 are removed: Model fit increases .91 to .95, reaching acceptable levels.
2) Either switch to a 5-point scale: “Excellent, Good, Average, Poor, Very Poor” or keep 6-point scale, but change labels so distribution is more balanced. Use of an even-numbered scale is traditionally intended to eliminate a neutral or “middle of the road” option: “Excellent, Good, Above Average, Below Average, Poor, Very Poor”.
3) Due to skewness and ordinality of distribution, present Medians in addition to or in place of Means.
4) Elimination of several items per subscale would create flexibility for individuals colleges/units to add customized items of their own.